

Digital detox: dealing with screen addiction your home

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1976



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Children's average daily recreational screen time

- 8-10: 6 hrs
- 11-14: 8-10 hrs
- South Africa: ?

(Centre for Disease Control and prevention)

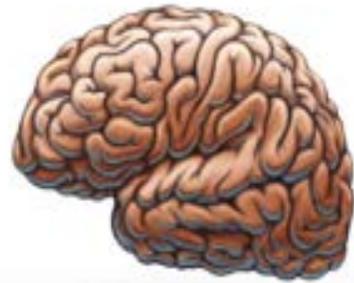
■ Guidelines: American Academy of paediatrics:

- | | |
|------------------|----------------------------------|
| ■ 0 – 15 months: | NIL |
| ■ 15 mo – 5 yrs: | Shared use , 30-60min dly |
| ■ 5-7: | 30-60min dly |
| ■ 7-12: | 1 hr dly |
| ■ 12-15: | 1.5 hrs daily |
| ■ 16 and older | 2 hours daily |

Why is it bad?

- Opportunity cost of excessive screen exposure
- Direct impact on the brain
- Indirect effects

Rapid early brain growth



Newborn Brain

Average weight
333 grams



2 Year Old's Brain

Average weight
999 grams

Infancy

- Mothers are preoccupied with screens



- Electronic devices have become surrogate babysitters



Infancy

- Tablets become surrogate babysitters
- Interferes with the process of *attachment*, by which children form secure emotional bonds with their mothers and fathers
- Healthy attachment requires
 - sufficient eye contact
 - physical touch
 - quality time
 - mother-tongue language stimulation

Outcomes of insecure attachment

- Reduced ability to delay gratification
- Poorer problem solving
- Poorer concentration
- Poorer social functioning
- Increased vulnerability to anxiety and depression

Middle childhood

- Physical health
- Sleep
- Psychological health
- Academic
- Seeds of addiction are sown

Impact on physical health

- Vitamin D deficiency
- Increased risk of obesity, diabetes
- UK study: children with a television in their rooms at aged seven were significantly more likely to be obese at the age of eleven
 - more sedentary lifestyle
 - disruption of the brain's satiety signaling when eating in front of a screen.
- Children exposed to ST >4hrs per day have a 48% increase in all-cause mortality

Impact on sleep

- Electronic screens emit 'blue light,' which shuts down natural melatonin production
- Excessive screen exposure reduces the time available for sleep

Impact on psychological health

- Electronic exploits produce a **false sense of achievement**
 - Impacts on self-esteem
- Increased risk of peer rejection
- Anger (online gaming)

Anxiety

- **Nomophobia:**
 - (Separation anxiety from one's phone)
- **Social media (Facebook, Instagram):**
 - Our self-esteem becomes intertwined with how many likes, how many followers we have
 - FOMO (Fear of missing out):
 - Affects 56% of social media users
- **Constant exposure to current affairs without the forum (dinner table) to adequately process it**

Depression

- Increased risk of depression
 - Anhedonia
 - Chicken and egg?

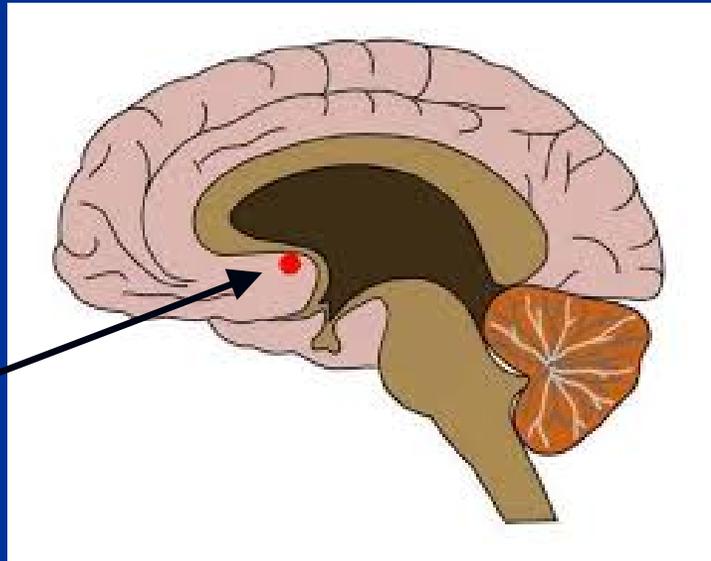
Is screen use addictive?

- Electronic gaming activates the same area of the brain (nucleus accumbens) as drugs of abuse such as cocaine, and other addictive behaviours
- Hallmark features of addiction:
 - you need more and more of it;
 - you neglect other areas of your life to pursue it;
 - when you can't have it, you experience depression and anxiety
 - you battle to think of anything besides it.
- Rehabilitation clinics for internet addiction:
 - 200 in South Korea
 - 300 in China
 - Detox boot camps

The brain's pleasure centre

Nucleus accumbens

Activated by dopamine



Problematic screen use

- Internet use disorder (Young, 1996)
- Internet gaming disorder
- Internet addiction disorder
- Problematic internet use
- Gaming disorder
- Pathological gaming
- Media addiction
- Problematic Interactive Media Use (PIMU), 4 types:
 1. Video gaming
 2. Social media
 3. Pornography
 4. Information gathering

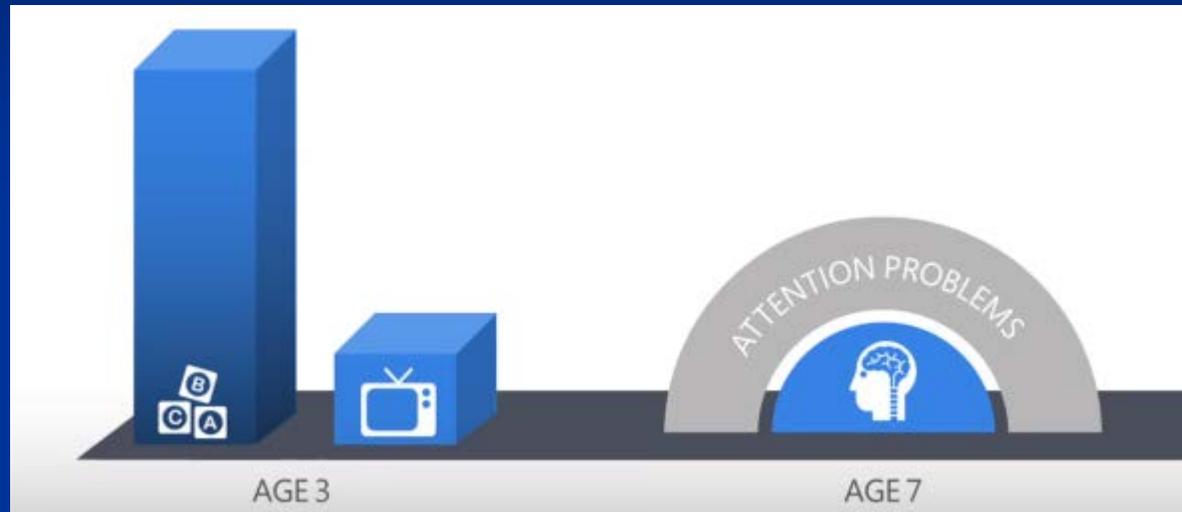
Impact on cognitive development

- 'Multitasking'
 - Computers can multitask, brains can't!
 - The brain operates in a linear, sequential manner
- In schools, grades have not increased because of technology
 - Australia: 'one to one laptop policy'
- 'Digital dementia': abnormal grey and white matter volume in internet gaming addicts

Impact on concentration span

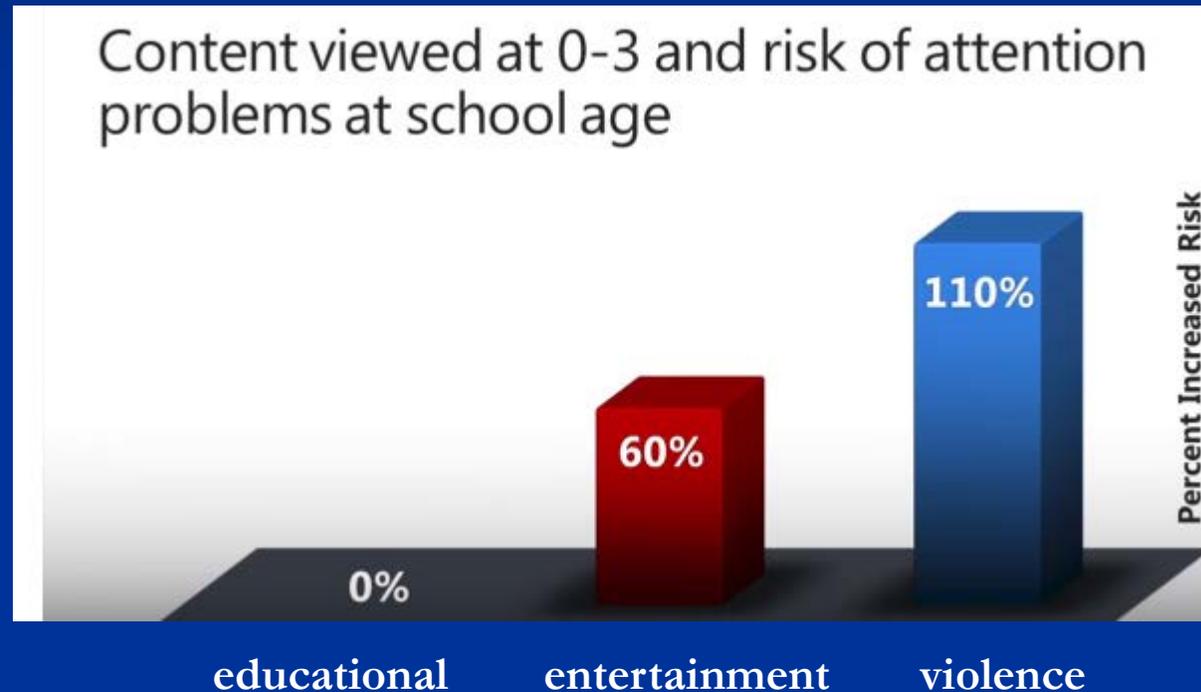
- For every hour of daily TV exposure at age 3, there is a 10% greater risk of concentration difficulties at school-going age
- Early and excessive screen exposure preconditions the mind to expect high levels of stimulation
- Rapidly increasing rates of **ADHD diagnosis**:
- Rapidly increasing **prescribing rates** for ADHD medications

Cognitive stimulation is protective



- For each hour of daily cognitive stimulation aged 3, there is a **30% reduced** risk of later concentration problems
- ‘Floor time’ the best way to stimulate brain development

Content and screen speed matter!



ADHD and screen addiction (PIMU)

- Highly correlated with each other:
 - PIMU over-represented in ADHD samples
 - ADHD over-represented in PIMU samples
- ADHD aggravates PIMU, and a risk factor for PIMU
- PIMU aggravates ADHD, and seems to be a risk factor for ADHD (at least in children and adolescents)

ADHD

Direct effect
Opportunity cost



PIMU

Rapid screen changes
Reward dependency
Shared biology



Teenagers

- Online gaming
- Pornography
- Cyberbullying
- Lost productivity

Pornography

- Highly addictive because of ‘polydrug’ effect
 - Cocaine-like effect (dopamine)
 - Heroin-like effect (endorphins)
 - Both cause *tolerance*:
 - You need more and more to achieve the same psychological effect
- *Accidental* exposure to pornography (screen pop-ups)
- Vicarious exposure (younger siblings)

Cyber-bullying

- the act of harassing someone online by sending or posting mean messages, usually anonymously
- 27% of teenagers surveyed have been cyber-bullied at some point



Guidelines

- It starts with the parents!
 - Decide *early on* what priorities you have as a family
 - Be intentional about the family culture you want to create
 - Model this to your children from the beginning

Impact on families

- Bringing work home
- Working from home
 - Boundaries are blurred
 - Children don't understand
- Enhanced adolescent isolation
- Reduced communication
- Wider generation gap
- Marriages too...
- Its deceptive; we think we're bonding and were not...



Parents and screens

- Mobile phones
 - The average employee checks their phone 110 times per day
 - Lost productivity at work
- Facebook/social media
 - Addictive quality
- TV
 - soapies
 - sport – it's easier to watch on TV than go to the game
 - grandparents
- Texting and talking whilst driving
 - Accidents
 - Lost opportunity for conversation

Lead by example

- We cannot expect a standard of behaviour from our children beyond what we ourselves have attained
- Your child needs to see that you are more interested in finding out about his day at school than Facebook
- It is up to us as parents to create the culture we desire in our homes
- We need to model to our children a lifestyle which prioritises the right things
- Clear separation between work and home even if you work from home

Teaching your kids digital etiquette

1. Text doesn't convey tone of voice
2. Waiting for a response
3. Leaving a chat
4. Photos last forever
5. You have a digital footprint
6. Watch your language
7. Do not make any derogatory references to your school/teachers
8. There is no such thing as privacy when it is written on a screen
9. Only have contacts whom you have met – face to face

Screen-free zones

- No electronic devices in bedrooms
 - Less parental control
 - Increased risk of inappropriate content
 - Increased risk of cyber-bullying
 - Impact on sleep
 - Link with obesity

Screen-free zones

- No screens at the dinner table!
- Eating in front of a screen disrupts memory encoding of the meal
- Allows for conversations and connection to happen
- **A forum to discuss what's happening in the news**
- Encourages a sense of routine
- Children who share one meal a day with their parents:
 - do better in school
 - less chance of later substance abuse

Screen free zones

- Car rides
 - Talk!
 - Listen to the radio
- Meals at a restaurant
 - Choose restaurants with no wifi



Guidelines

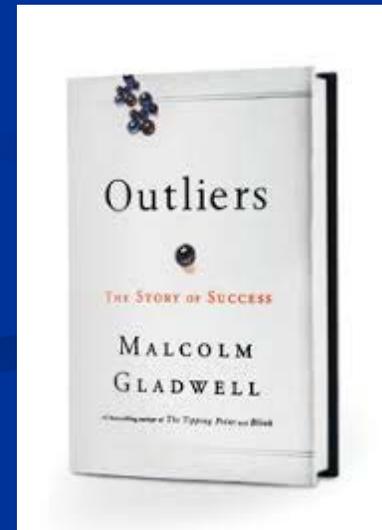
- Use screen time as an incentive and as a consequence
 - *After* chores, homework, exercise, piano practice etc
 - **You** need to set a timer and *you* need to monitor the timer
 - Use a 5 minute warning

Guidelines

- A **smart phone** is a privilege, not a right
- Random spot checks
 - ... but avoid voyeurism
- Befriend on FB; follow on twitter
- Resist the pressure of the rest of your child's peer group

Guidelines

- Screen time should not be first thing in the morning
 - ... weekdays *and* weekends *and* holidays
- Pay special attention to holidays:
 - What happens in the holidays is developmentally very important
 - “Concerted cultivation”: proactively seeking out opportunities for children to be stimulated and to engage with the world around them in meaningful ways
 - Enrol your child in a holiday programme/clinic
 - Enlist the help of grandparents or other family members
 - Where possible, take a child to work



Proactive versus reactive parenting

- Focus your attention on the good stuff!
- We have to be proactive and plan
 - Board games
 - Healthy conversation
 - Reading
 - Outdoor activity
 - Outings, museums, art galleries, the ballet, the library, concerts, the botanical gardens
 - Family nights
 - Digital sabbath
 - Screen fast
 - Go camping once a year
 - If you have home help, be intentional about communicating your expectations for the children
- These are acquired tastes but worth it in the end!

'it takes a village to raise a child'

■ Talk

- to your spouse
- to other parents
- to friends

■ Utilise available resources

- Disney circle and similar
- www.drdunckley.com
- www.healthychildren.org/
 - Media use plan
- Gamequitters.com
- *Digital cocaine* (Brad Huddleston)
- Dimitri Christakis: www.youtube.com/watch?v=BoT7qH_uVNo

Take-home messages

- Be **aware** of the problem
- Electronic screen exposure affects children at **every stage of development**
- Electronic devices are associated with a real, **physiological addiction**
- Appropriate screen use starts with the parents, and ideally **early on** in family development
- We must be careful not to focus entirely on prohibition, but to **proactively emphasise healthy alternatives**

Points for discussion

- Dealing with your child's objections:
 - 'I won't be able to communicate with my friends'
 - 'I listen to music when I study'
 - 'You don't understand...the world has changed'
 - 'I need my iPad to study'
- Is it *all* bad?
 - How do we harness technology to add value to our lives without letting it control/damage us?